

Psyllids of the Kuril Islands (Homoptera, Psylloidea)

E.S. Labina

Labina, E.S. 2006. Psyllids of the Kuril Islands (Homoptera, Psylloidea). *Zoosystematica Rossica*, **15**(1): 51-55.

A faunal list of Psylloidea of the Kuril Islands is given. Of the 34 species reported, 17 are new to the fauna of the archipelago and some are recorded for the first time from particular islands, especially from Northern and Middle Kurils and Shikotan.

E.S. Labina, Zologicheskiy Institut, Russian Academy of Sciences, Universitetskaya nab., 1, 199034 St.Petersburg, Russia. E-mail: labina_e@mail.ru

The fauna of the Kuril Islands had been studied by Loginova (1962, 1976), Kuwayama (1967), Konovalova (1978, 1981, 1988) and Klimaszewski (1983). Loginova described four new species from the archipelago, one species in 1962 (*Craspedolepta topicalis*) and three in 1976 (*Calophya phellodendri*, *Epheloscya kalopanacis*, *E. sancta*). She also noted in 1976 two more species for this region (*Calophya nigra*, *C. nigridorsalis*). Kuwayama (1967) added two species to the faunal list (*Aphalara itadori* and *Psylla betulae*). Konovalova (1981) described an endemic Kuril species (*Psylla cunashiri*), recorded from the archipelago some other species (Konovalova, 1978, 1981, 1983) and listed in the keys (Konovalova, 1988) 15 species from the Kuril Islands. However, *E. kalopanacis* and *E. sancta* are not noted from the Kuril Islands in these keys, so the total number of species recorded from the Kurils up to now is 17. Also 17 species were noted by Konovalova (1988) as distributed "everywhere", but only 5 of these species were collected in the archipelago; I do not consider these statements by Konovalova to be records from the Kuril Islands. Klimaszewski (1983) described *Aphalara kunashirensis*, but this name proved to be a junior synonym of *A. itadori* (see Burckhardt & Lauterer, 1997).

This paper is based on material of Zoological Institute RAS, St.Petersburg, collected mainly by I.M. Kerzhner in 1973 and partly by other entomologists (N.A. Azarova, E.R. Budris, L.P. Danilovitsh, E.M. Danzig, V.M. Ernolenko, K.B. Gorodkov, Z.A. Konovalova, G.O. Krivolutskaya, E.P. Nartshuk, O.A. Skarlatto, V.N. Tansajtshuk, N.A. Violovitsh) and material collected during the expeditions of The International Kuril Island Project (IKIP) by American participants (B.K. Urbain, D.J. Bennett, P. Oberg, V. Roth, T.R. Anderson, N. Minakawa) in 1995-2001 and by Russian participant Yu.M. Marusik in 1996-1997. Part of the IKIP material (341 specimens) was sent for identification to S. Muddiman (U.K.) in 1997; my efforts to locate these specimens were unsuccessful. Specimens collected by Marusik are kept at the Zoological Institute, St.Petersburg, and those collected by the American participants of the IKIP expeditions, at the California Academy of Sciences, San Francisco. I examined also briefly Konovalova's psyllid collection in the Institute of Biology and Soil Sciences in Vladivostok.

The islands (see map) are listed approximately from the northern to the southern ones in the following se-

quence: Shumshu, Paramushir, Onekotan, Raikoke, Simushir, Chirpoi, Urup, Iturup, Kunashir, Shikotan, Zelionyi and Tanfilyeva.

For the IKIP material, the field numbers are given in brackets. Each field number consists of four parts united with hyphens: abbreviated name of the island, two last characters of the year of collecting, abbreviated name of collector, individual number of the sample. More details can be found at <http://artedi.fish.washington.edu/Okhotskia/database/LocalitySearch.htm>.

In references to previous records by Konovalova (1988), exact localities within the islands are listed for some species based on the examined collection in Vladivostok.

An asterisk before the species name means new to the fauna of the archipelago. An asterisk before the island name means new record for the island.

The distribution of species in the archipelago is summarized in the Table. For distributions outside of the Kuril Islands see Gegechkori & Loginova (1990).

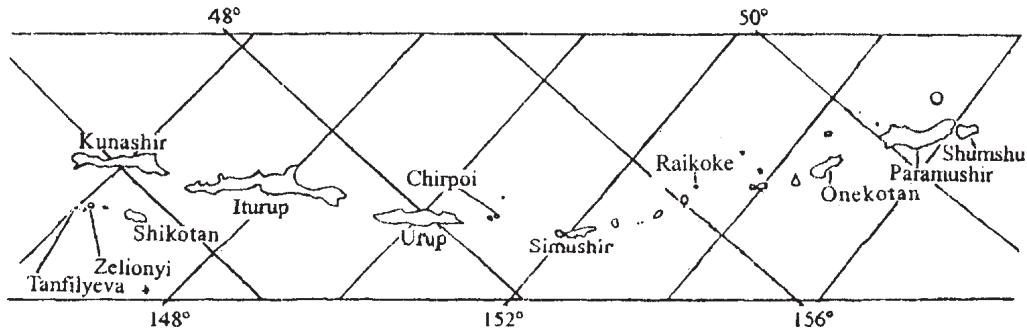
Family CALOPHYIDAE

Subfamily CALOPHYINAE

Calophya nigra Kuwayama, 1908. *Shikotan*: 1 ♂, 1 ♀, Otradnaya, *Phellodendron* sp., 14.VII.1975, Z.A. Konovalova; 2 ♀, Krabozavodsk, 14.VII.1973, I.M. Kerzhner. – Previously recorded from Kunashir (Konovalova, 1983, 1988; Tyatya vlc.; Tretyakovo) and Shikotan (Loginova, 1976; Otradnaya; Konovalova, 1978, 1983, 1988; Malokuril'sk).

Calophya nigridorsalis Kuwayama, 1908. *Kunashir*: 15 ♂, 24 ♀, Mendeleeva vlc., 11.VIII.1973, I.M. Kerzhner. – Previously recorded from Kunashir (Loginova, 1976 and Konovalova, 1983, 1988; Mendeleeva vlc.).

Calophya phellodendri Loginova, 1976. *Kunashir*: 1 ♂, 2 ♀, Yuzhno-Kuril'sk, 24.VIII.1973, I.M. Kerzhner; 2 ♂, 2 ♀, Mendeleevo, 26.VI, 3.VII.1973, I.M. Kerzhner; *Shikotan*: 9 ♂, 22 ♀, Malokuril'sk, 20-21.VI, 20.VIII.1973, I.M. Kerzhner; 11 ♂, 13 ♀, Krabozavodsk, 14-15, 17.VIII.1973, I.M. Kerzhner. – Previously recorded from Kunashir (Loginova, 1976; Yuzhno-Kuril'sk; Mendeleevo; Konovalova, 1983, 1988; Yuzhno-Kuril'sk; Mendeleeva vlc.) and Shikotan (Loginova, 1976: Malokuril'sk; surroundings of Krabozavodsk; Konovalova, 1983, 1988; Malokuril'sk).



Map of the Kuril Islands

Calophya viridiscutellata Kuwayama, 1908. – Recorded by Konovalova (1988) from Kunashir (Alekhino).

Family PSYLLIDAE

Subfamily APHALARINAE

Aphalara itadori (Shinji, 1938) (= *kunashirensis* Klimaszewski, 1983, see Burckhardt & Lauterer, 1997: 290). *Kunashir*: 1 ♀, Tretyakovo, 6.VII.1968, E.P. Nartshuk; 3 ♂, 9 ♀, Tretyakovo, 1, 5.VII.1973, I.M. Kerzhner; 5 ♂, 8 ♀, 7 km N of Mendeleevo, 7.VII.1968, E.P. Nartshuk; 1 ♂, Sernovodsk, 6.VI.1968, E.P. Nartshuk; 18 ♂, 15 ♀, Sernovodsk, 6, 28.VI, 15.VII.1973, I.M. Kerzhner; 1 ♀, Golovnina vlc., 24.VII.1973, I.M. Kerzhner; 4 ♂, Yuzhno-Kuril'sk, 11, 12.VII.1973, I.M. Kerzhner; 7 ♂, 8 ♀, slopes of Okhotsk coast near Zyrenko cape, on leaves of *Polygonum* sp., 4.VII.1962, G.O. Krivolutskaya. – Previously recorded from Kunashir (Kuwayama, 1967: Tyatino; Gemmerlinga cape; Klimaszewski, 1983, as *kunashirensis*; Tyatya vlc.; Konovalova, 1988).

***Aphalara polygoni** Förster, 1848. *Simushir*: 1 ♂, 5 ♀, north end, inland north-eastern from Broutona bay, 47°07'86"N, 152°16'20"E, sweep net, along road, from grasses and herbs, 2.VIII.2000, D.J. Bennett (SI-00-DJB-063a); *Kunashir*: 1 ♂, Tret'yakovo, 4.VIII.1976, L.P. Danilovitsh.

Craspedolepta topicalis Loginova, 1962. **Iturup*: 1 ♂, 1 ♀, Okhotsk sea side, Slavnaya Bay, 45°29'68"N, 148°37'46"E, 6.VIII.1998, B.K. Urbain (IT-98-BKU-066); 5 ♂, 6 ♀, Pacific side, inland from Medvezh'ya bay, 45°25'75"N, 148°49'75"E, 5.VIII.1998, B.K. Urbain (IT-98-BKU-062); 4 ♂, 4 ♀, inland of Konservnaya Bay 45°20'04"N, 147°59'34"E, 12.VIII.1999, D.J. Bennett (IT-99-DJB-077a); 25 ♂, 31 ♀, east side of Chirip Peninsula, Konservnaya Bay coastal margin, 45°20'04"N, 147°59'84"E, sweep net/aspirator, herbs in coastal lowland wetland, 30.VII.1997, B.K. Urbain (IT-97-BKU-021); 2 ♂, 2 ♀, near Kitovy village, 45°16'58"N, 147°52'45"E, 3.VIII.1995, V. Roth (IT-95-VR-006); 1 ♀, near Kitovy first stream N of Nezhnyi river, 45°17'63"N, 147°52'55"E, 3.VIII.1995, P. Oberg, sweep net, riparian vegetation of bamboo and grass, volcanic substrate (IT-95-PO-006); 7 ♂, 9 ♀, north of Kitovy village, environs of Nezhnyi river, 45°16'71"N, 147°52'29"E, 3.VIII.1995, N. Minakawa, P. Oberg (IT-95-PO-007); 1 ♀, north of Kitovy village near Nezhnyi river, 45°16'71"N, 147°52'29"E, sweep net and beating sheet in open grassland on volcanic soil, 3.VIII.1995, P. Oberg (IT-95-PO-007); 25 ♂, 31 ♀, coast of Konservnaya bay, 45°20'04"N, 147°59'84"E, 30.VII.1997, B.K. Urbain (IT-97-BKU-

021); 1 ♂, 2 ♀, south of Kitovy village, 45°16'34"N, 147°52'34"E, 3.VIII.1995, B.K. Urbain (IT-95-BKU-007); 1 ♂, 1 ♀, central, Pacific side, North-East part of Kasatka bay, 45°00'35"N, 147°43'65"E, 1.VIII.1998, B.K. Urbain (IT-98-BKU-043); 1 ♂, inland from Semozavoskaya Bay, 44°58'06"N, 147°43'65"E, 2.VIII.1998, B.K. Urbain (IT-98-BKU-050); *Kunashir*: 2 ♂, 4 ♀, environs of lake Aliger on road to lake Lagunnoe, 44°03'25"N, 145°03'25"E, 11.VIII.1998, B.K. Urbain (KU-98-BKU-072); 7 ♂, 6 ♀, near lake Serebryanoye, 44°03'07"N, 145°49'25"E, 22.VIII.1998, B.K. Urbain (KU-98-BKU-131); 17 ♂, 8 ♀, Sernovodsk, 3.VIII.1971, E.P. Nartshuk; 2 ♂, 3 ♀, Sernovodsk, 28.VI, 15.VII.1973, I.M. Kerzhner; 11 ♂, 4 ♀, Alekhino, 29.VII.1973, I.M. Kerzhner; 13 ♂, 18 ♀, Tretyakovo, 1.VII, 4, 8.VIII.1973, I.M. Kerzhner; 32 ♂, 40 ♀, Dubovoe near Golovnina, 18-22.VII.1973, I.M. Kerzhner; 1 ♂, 1 ♀, 7 km from Mendeleevo, 31.VII.1971, E.P. Nartshuk; 1 ♂, Mendeleevo, 3.VII.1973, I.M. Kerzhner; 1 ♂, 1 ♀, lake Lagunnoe east of Yuzhno-Kuril'sk, 12.VII.1973, I.M. Kerzhner; *Shikotan*: 24 ♂, 18 ♀, inland from Otradnaya Bay, 43°52'14"N, 146°47'67"E, 12.VIII.1998, B.K. Urbain (SH-98-BKU-080); 1 ♂, 2 ♀, surroundings of Gorobets bay, 43°49'33"N, 146°42'67"E, 18.VIII.1998, B.K. Urbain, E.M. Sayenko (SH-98-BKU-101); 1 ♀, northeast, surroundings of Otradnaya bay, 43°52'30"N, 146°46'76"E, 16.VIII.1998, D.J. Bennett (SH-98-DJB-087); 1 ♀, foot of Shikotan mountain, 12.VIII.1971, V.N. Tanasijtshuk; 2 ♂, 2 ♀, Krabozavodsk, 14.VIII.1973, I.M. Kerzhner; 2 ♂, 1 ♀, Krabozavodsk – Tserkovnaya bay, 15.VIII.1973, I.M. Kerzhner; 2 ♂, 6 ♀, Tserkovnaya bay, 16.VIII.1973, I.M. Kerzhner; 1 ♀, Tserkovnaya bay, 22.VII.1976, L.P. Danilovitsh; 1 ♀, surroundings of Malokuril'sk, mixed forest, 21.VIII.1953, N.A. Azarova; 5 ♂, 5 ♀, Malokuril'sk, 14-15.VIII.1971, E.P. Nartshuk; 6 ♂, 8 ♀, Malokuril'sk, 20-21.VIII.1973, I.M. Kerzhner; 3 ♀, Tsyboy, 24.VIII.1947, O.A. Skarlato; 1 ♂, Tsyboy, 24.VIII.1964, G.O. Krivolutskaya; **Zelionyi*: 1 ♂, 2.VIII.1953, N.A. Violovitsh; **Tanfilyeva*: 3 ♂, 3 ♀, Tanfil'yevska Bay, 43°26'79"N, 145°55'32"E, 19.VIII.1998, B.K. Urbain (TA-98-BKU-117). – Previously recorded from Kunashir (Konovalova, 1988) and Shikotan (Loginova, 1962; Tsyboy; Konovalova, 1988).

Epheloscyta kalopanacis Loginova, 1976. *Kunashir*: 1 ♀, Alekhino, 14.VI.1973, I.M. Kerzhner. – Previously recorded by Loginova (1976) from Kunashir (Alekhino).

Epheloscyta sancta Loginova, 1976. *Kunashir*: 1 ♂, 2 ♀, Yuzhno-Kuril'sk, 24.VII.1973, I.M. Kerzhner; 1 ♀, Alekhino, 14.VI.1973, I.M. Kerzhner; 1 ♀, Sernovodsk, 10.VII.1967, E.M. Danzig; 1 ♂, Sernovodsk, 5.VI.1973, I.M. Kerzhner; 3 ♂, 4 ♀, Dubovoe, 10.VI.1973, I.M. Kerzhner. – Previously recorded by Loginova (1976) from Kunashir (Yuzhno-Kuril'sk; Alekhino; Sernovodsk; Dubovoe).

**Livia jesoenensis* Kuwayama, 1908 (= *liviooides* Loganova, 1967). *Kunashir*: 1 ♀, near Yuzhno-Kuril'sk, 25.VIII.1971, V.N. Tanasijtshuk; 1 ♀, Sernovodsk, 8.VI.1968, E.P. Nartshuk; 1 ♂, Sernovodsk, 6.VI.1973, I.M. Kerzhner; 1 ♂, Tretyakovo, 9.VIII.1973, I.M. Kerzhner; 12 ♂, 14 ♀, Dubovoe near Golovnino, 10.VI.20.VII, 1.IX.1973, I.M. Kerzhner; *Shikotan*: 2 ♂, 3 ♀, Malokuril'sk, Kray Sveta, 20.VIII.1971, E.P. Nartshuk; 2 ♂, 1 ♀, Malokuril'sk, 20-21.VIII.1973, I.M. Kerzhner. — Note: *L. jesoenensis* was described from Hokkaido and *L. liviooides* from the mainland of the Russian Far East. Loganova (1967) examined specimens identified as *L. jesoenensis* from Honshu and listed several differences from *L. liviooides*. Of these, only the shape of the parameres in caudal view (precisely figured by Loganova) is a reliable distinction. Hodkinson & Bird (2000: 14) synonymized the two species. In my opinion, this synonymy requires further substantiation. The Kuril specimens do not differ from the types of *L. liviooides*.

Subfamily PSYLLINAE

**Anomoneura mori* Schwarz, 1896. *Kunashir*: 8 ♂, 9 ♀, Tretyakovo, 8.VIII.1971, V.M. Ermolenko; 1 ♀, Tretyakovo, 5.VII.1973, I.M. Kerzhner; 2 ♀, Sernovodsk, 5.VI.1973, I.M. Kerzhner. — This species was recorded by Gegechkori & Loganova (1990) from the Far East of Russia (without specification) based on the above specimens.

Cacopsylla amabilis Ossiannilsson, 1975. **Shumshu*: 1 ♂, 6 ♀, inland from Babushkina Bay along SE shore of lake, 50°39.92'N, 156°24.21'E, sweep net, short herbaceous and grassy meadow, 10.VIII.1997, B.K. Urbain (SU-97-BKU-061); **Chirpoi*: 14 ♂, 35 ♀, small valley on SW side of Peschanaya bay, 46°32.05'N, 150°53.50'E, sweep net, mixed grasses and herbs in small valley, 6.VIII.2000, T.R. Anderson (CH-00-ATR-083); **Urup*: 1 ♀, central shore Barkhatnyi bay, Lopuchovaya river, 45°48.07'N, 149°54.12'E, 28-29.VIII.1995, Yu.M. Marusik (UR-95-YMM-097-104); *Kunashir*: 3 ♀, Tretyakovo, 5.VII.1973, I.M. Kerzhner. — Previously recorded by Konovalova (1981, 1988) from Kunashir.

**Cacopsylla ambigua* (Förster, 1848). *Kunashir*: 4 ♂, 5 ♀, Tretyakovo, 1, 5.VII.1973, I.M. Kerzhner; 2 ♂, 1 ♀, Dubovoe near Golovnino, 8.VI, 22.VII.1973, I.M. Kerzhner; 1 ♂, *Shikotan*: Malokuril'sk, 21.VI.1973, I.M. Kerzhner. — Recorded by Konovalova (1988) from Kunashir.

Cacopsylla fulguralis (Kuwayama, 1908). — Recorded by Konovalova (1988) from Kunashir.

**Cacopsylla hartigi* (Flor, 1861). *Kunashir*: 18 ♂, 15 ♀, Dubovoe near Golovnino, 19, 22.VII.1973, I.M. Kerzhner; *Shikotan*: 2 ♀, Malokuril'sk, 21.VIII.1973, I.M. Kerzhner.

**Cacopsylla malii* (Schmidberger, 1836). *Kunashir*: 49 ♂, 53 ♀, Tretyakovo, 1, 5.VII, 4-10.VIII.1973, I.M. Kerzhner; 1 ♀, Lagunnoe lake, east of Yuzhno-Kuril'sk, 12.VII.1973, I.M. Kerzhner; 5 ♂, 2 ♀, Alekhino, 29-30.VII.1973, I.M. Kerzhner; 5 ♂, 7 ♀, Sernovodsk, 15-16.VII.1973, I.M. Kerzhner; 1 ♂, 2-7 km east of Sernovodsk, 17.VII.1973, I.M. Kerzhner; 4 ♂, 6 ♀, Dubovoe near Golovnino, 18.VII, 31.VIII.1973, I.M. Kerzhner.

**Cacopsylla melanoneura* (Förster, 1848). *Kunashir*: 1 ♀, Tretyakovo, 5.VII.1973, I.M. Kerzhner.

**Cacopsylla moscovita* (Andrianova, 1948). *Shumshu*: 8 ♀, 2 km of Pochtareva cape, 50°49.32'N, 156°29.76'E, 8.VIII.1997, B.K. Urbain (SU-97-BKU-048); 1 ♂, inland from Babushkina Bay along SE shore of lake, 50°39.92'N, 156°24.21'E, sweep net, short herbaceous and grassy meadow, 10.VIII.1997, B.K. Urbain (SU-97-BKU-061); *Urup*: 2 ♂, 6 ♀, coastal margin of Novo-Kurilskaya Bay, 46°12.86'N, 150°18.51'E, 8.VIII.1995, B.K. Urbain (UR-95-BKU-029b); 6 ♀, Novo-Kurilskaya Bay, environs of Bystraya river, 46°12.77'N, 150°18.92'E, 8.VIII.1995,

B.K. Urbain (UR-95-BKU-035); 1 ♂, inland of Natalii bay along Obzhitaya river, 46°05.49'N, 150°10.11'E, 7.VIII.1995, B.K. Urbain (UR-95-BKU-025b); 6 ♂, 3 ♀, mouth of Obzhitaya river, 46°05.42'N, 150°10.17'E, 7.VIII.1995, B.K. Urbain (UR-95-BKU-026a); 2 ♂, inland coastal margin of Smuglyi bay near Rybnaya river, 46°01.46'N, 149°59.02'E, aerial net and beating, marshland vegetation, grasses and willows, 24.VIII.1995, P. Oberg (UR-95-PO-087); 2 ♂, inland from Aleutka bay, lowland near river, 45°56.18'N, 150°09.39'E, 7.VIII.2000, T.R. Anderson (UR-00-ATR-086); 40 ♂, 33 ♀, inland from Chernoburka bay along river, 45°36.26'N, 149°34.55'E, sweep net, mixed herbs and aklers along river banks, 9.VIII.2000, D.J. Bennett (UR-00-DJB-084); *Kunashir*: 4 ♂, 3 ♀, Mendeleevo, 3.VII.1973, I.M. Kerzhner; 1 ♂, 3 ♀, Tretyakovo, 1, 5.VII.1973, I.M. Kerzhner; *Shikotan*: 1 ♀, surroundings of Gorobets bay, 43°49.33'N, 146°42.67'E, 18.VIII.1998, B.K. Urbain, E.M. Sayenko (SH-98-BKU-101).

**Cacopsylla zajcevi* Šulc, 1915. *Paramushir*: 1 ♂, north-east shore, Severo-Kuril'sk environs, 50°40'N, 156°06'E, 10.08-15.IX.1996, Yu.M. Marusik.

**Psylla alni* (Linnaeus, 1758). *Kunashir*: 6 ♂, 4 ♀, Golovnino, 22.VII.1989, E.R. Budris; 11 ♂, 15 ♀, Dubovoe near Golovnino, 18-19.VII, 31.VIII-1.IX.1973, I.M. Kerzhner; 1 ♂, 1 ♀, Golovnina vlc., 24.VII.1973, I.M. Kerzhner; 1 ♂, 4 ♀, Mendeleeva vlc., 21.VIII.1973, I.M. Kerzhner; 4 ♂, 3 ♀, Alekhino, 29-30.VII.1973, I.M. Kerzhner; 3 ♂, Sernovodsk, 26.VIII.1973, I.M. Kerzhner; **Shikotan*: 1 ♀, mid-northern side inland from Gorobets bay, 43°49.26'N, 148°42.48'E, 18.VIII.1998, B.K. Urbain (SH-98-BKU-108); 3 ♂, 2 ♀, Malokuril'sk, 20-21.VIII.1973, I.M. Kerzhner; 4 ♂, 3 ♀, Tserkovnaya bay, 16.VIII.1973, I.M. Kerzhner; 6 ♂, 4 ♀, Krabozavodskoe vlc., 43°50.10'N, 146°45.24'E, sweeping deciduous trees, 14.IX.1997, Yu.M. Marusik.

Psylla araliae Konovalova, 1981. — Recorded by Konovalova (1988) from Kunashir.

Psylla betulae (Linnaeus, 1758). *Urup*: 2 ♂, 5 ♀, 0.5 km inland from Aleutka bay, lowland near river, 45°56.18'N, 150°09.39'E, sweep net, mixed grasses and herbs (mostly *Filipendula*), 7.VIII.2000, D.J. Bennett (UR-00-DJB-081); 3 ♂, 2 ♀, inland from Chernoburka bay along river, 45°36.26'N, 149°34.55'E, sweep net, mixed herbs and aklers along river banks, 9.VIII.2000, D.J. Bennett (UR-00-DJB-084); *Iturup*: 3 ♀, Okhotsk sea side, Slavnaya Bay, 45°29.68'N, 148°37.46'E, 6.VIII.1998, B.K. Urbain (IT-98-BKU-066); 1 ♀, Okhotsk sea side, Slavnaya bay, 45°29.47'N, 148°37.29'E, 6.VIII.1998, B.K. Urbain (IT-98-BKU-065); 1 ♂, 2 ♀, northern, Pacific side, inland from Medvezh'ya bay, 45°25.75'N, 148°49.75'E, 5.VIII.1998, B.K. Urbain (IT-98-BKU-062); *Kunashir*: 13 ♂, 19 ♀, Dubovoe near Golovnino, 19-22.VII, 31.VIII-1.IX.1973, I.M. Kerzhner; 1 ♀, Dubovoe, 13.VIII.1976, L.P. Danilovitsh; 1 ♂, 2 ♀, Golovnina vlc., 24.VII.1973, I.M. Kerzhner; 2 ♀, Tretyakovo, 10.VIII.1973, I.M. Kerzhner; **Shikotan*: 1 ♀, inland from Gorobets bay, 43°49.26'N, 148°42.48'E, 18.VIII.1998, B.K. Urbain (SH-98-BKU-106); 1 ♂, Krabozavodskoe vil., 43°50.10'N, 146°45.24'E, sweeping deciduous trees, 14.IX.1997, Yu.M. Marusik. — Previously recorded from Kunashir (Kuwayama, 1967; Grigor'ev; Goryachi Plyazh), Iturup (Kuwayama, 1967; Kosatka) and Urup (Kuwayama, 1967).

Psylla cunashiri Konovalova, 1981. — Recorded by Konovalova (1988) from Kunashir (surroundings of Yuzhno-Kuril'sk, upper part of Kislaya river; Kipyashchee lake; Tretyakovo).

**Psylla fumosa* Konovalova, 1979. *Iturup*: 1 ♂, 2 ♀, Okhotsk sea side, Slavnaya Bay, 45°29.68'N,

Table. Distribution of Psylloidea in the Kuril Islands

Species	SU	PA	ON	RK	SI	CH	UR	IT	KU	SH	ZL	TA
<i>Calophya nigra</i>									•	•		
<i>C. nigridorsalis</i>									•			
<i>C. phellodendri</i>									•	•		
<i>C. viridiscutellata</i>									•			
<i>Aphalara itadori</i>									•			
<i>A. polygoni</i>					•				•			
<i>Craspedolepta topicalis</i>								•	•	•	•	•
<i>Epheloscyta kalopanaxis</i>									•			
<i>E. sancta</i>									•			
<i>Livia jesoenensis</i>									•	•		
<i>Anomoneura mori</i>									•			
<i>Cacopsylla amabilis</i>	•					•	•		•			
<i>C. ambigua</i>									•	•		
<i>C. fulguralis</i>									•			
<i>C. hartigi</i>									•	•		
<i>C. mali</i>									•			
<i>C. melanoneura</i>									•			
<i>C. moscovita</i>	•						•		•	•		
<i>C. zajcevi</i>		•										
<i>Psylla alni</i>									•	•		
<i>P. araliae</i>									•			
<i>P. betulae</i>							•	•	•	•		
<i>P. cunashiri</i>									•			
<i>P. fumosa</i>								•	•	•		
<i>P. haimatsucola</i>									•			
<i>P. malivorella</i>									•			
<i>P. matsumurai</i>		•										
<i>P. minima</i>	•	•			•		•	•				
<i>P. octomaculata</i>									•	•		
<i>P. sorbicola</i>	•	•	•									
<i>Bactericera arctica</i>									•	•		
<i>B. calcarata</i>									•	•		
<i>B. femoralis</i>									•			
<i>Neorhinopsylla takahashii</i>									•	•		
Total	4	4	1	1	1	2	4	3	30	14	1	1

Abbreviations: SU, Shumshu; PA, Paramushir; ON, Onekotan; RK, Raikoke; SI, Simushir; CH, Chirpoi; UR, Urup; IT, Iturup; KU, Kunashir; SH, Shikotan; ZL, Zelionyi; TA, Tanfilyeva.

148°37.46'E, 6.VIII.1998, B.K. Urbain IT-98-BKU-066; *Kunashir*: 1 ♀, Tretyakovo, 9.VIII.1973, I.M. Kerzhner; *Shikotan*: 1 ♀, Krabozavodskoe vil., 43°50.10'N, 146°45.24'E, sweeping branches of *Abies* and *Taxus*, 14.IX.1997, Yu.M. Marusik.

Psylla haimatsucola Miyatake, 1964. – Recorded by Konovalova (1988) from Kunashir.

***Psylla malivorella** (Sasaki, 1915). *Kunashir*: 1 ♀, Tretyakovo, 6.VII.1973, I.M. Kerzhner.

Psylla matsumurai Miyatake, 1964. – Recorded by Konovalova (1988) from Paramushir.

***Psylla minima** Konovalova, 1979. *Shumshu*: 1 ♂, 2 ♀, 2 km of Pochtareva cape, 50°49.32'N, 156°29.76'E, 8.VIII.1997, B.K. Urbain (SU-97-BKU-048); 14 ♂, 18 ♀, inland from Babushkina Bay along SE shore of lake, 50°39.92'N, 156°24.21'E, sweep net, short herbaceous and grassy meadow, 10.VIII.1997, B.K. Urbain (SU-97-BKU-061); *Paramushir*: 12 ♂, 19 ♀, near town of Putyatino on North-Eastern corner of island near lake, 50°44.19'N, 156°08.82'E, sweep net/aspirator, lowland meadow, herbs and grasses, 4.VIII.1997, B.K. Urbain (PA-97-BKU-031); *Raijoke*: 3 ♀, inland from northeast coast, 48°17.97'N, 153°15.82'E, 13.VIII.1996, B.K. Urbain (RK-96-BKU-057); 6 ♂, 10 ♀, inland from northeast coast, 48°17.91'N, 153°15.46'E, 13.VIII.1996, B.K. Urbain (RK-96-BKU-061); *Chirpoi*: 5 ♂, 9 ♀, small valley on SW side of Peschanaya bay, 46°32.05'N, 150°53.50'E, sweep net, mixed grasses and herbs in small valley, 6.VIII.2000, T.R. Anderson (CH-00-ATR-083); *Urup*: 2 ♂, 4 ♀, coastal margin of Novo-Kurilskaya Bay, 46°12.86'N, 150°18.51'E, 8.VIII.1995, B.K. Urbain (UR-95-BKU-029b).

***Psylla octomaculata** Konovalova, 1987. *Kunashir*: 6 ♂, 11 ♀, Mendeleevo, 3.VII.1973, I.M. Kerzhner; 1 ♀, Sernovodsk, 15.VII.1973, I.M. Kerzhner; *Shikotan*: 3 ♂, Malokuril'sk, 20, 21.VIII.1973, I.M. Kerzhner; 1 ♂, Krabozavodskoe vil., 43°50.10'N, 146°45.24'E, sweeping deciduous trees, 14.IX.1997, Yu.M. Marusik.

Psylla sorbicola Miyatake, 1963. *Shumshu*: 2 ♂, 2 km of Pochtareva cape, 50°49.32'N, 56°29.76'E, 8.VIII.1997, B.K. Urbain (SU-97-BKU-048); **Onekotan*: 1 ♂, inland of Mussel Bay, 49°23.25'N, 154°49.25'E, 7.VIII.1996, B.K. Urbain (ON-96-BKU-023). – Previously recorded by Konovalova (1988) from Shumshu and Paramushir (Severo-Kuril'sk).

Subfamily TRIOZINAE

***Bactericera arctica** (Hodkinson, 1978). *Kunashir*: 1 ♂, Sernovodsk, 6.VI.1973, I.M. Kerzhner; *Shikotan*: 1 ♂, 4 ♀, Malokuril'sk, 21.VI.1973, I.M. Kerzhner; 1 ♂, Krabozavodsk – Tserkovnaya bay, 15.VIII.1973, I.M. Kerzhner.

***Bactericera calcarata** (Schaefer, 1949). *Kunashir*: 2 ♂, 6 ♀, Sernovodsk, 6.VI, 15-16.VII.1973, I.M. Kerzhner; 2 ♂, 1 ♀, Mendeleevo, 3.VI.1973, I.M. Kerzhner; 1 ♀, Dubovoe near Golovnino, 10.VI.1973, I.M. Kerzhner; *Shikotan*: 4 ♂, 16 ♀, Malokuril'sk, 20-21.VIII.1973, I.M. Kerzhner.

***Bactericera femoralis** (Förster, 1848). *Kunashir*: 1 ♀, around Mendeleevo airport, 43°57.77'N, 145°40.98'E, sweeping, 25.IX.1997, Yu.M. Marusik.

Neorhinopsylla takahashii (Boselli, 1930). *Kunashir*: 3 ♂, Sernovodsk, 16.VII.1973, I.M. Kerzhner; **Shikotan*: 1 ♂, inland from Gorobets bay, 43°49.26'N, 148°42.48'E, 18.VIII.1998, B.K. Urbain (SH-98-BKU-106). – Previously recorded by Konovalova (1988) from Kunashir (Sernovodsk; 10 km north of Yuzhno-Kuril'sk).

Acknowledgements

I am thankful to J. Schweikert (California Academy of Sciences) for the loan of the specimens collected by the American participants of IKIP. The work on the International Expedition was supported in part by the Biological Sciences Directorate (Biotic Surveys and Inventories Program) and the International Program Division of the U.S. National Science Foundation, grant numbers DEB-9400821 and DEB-9505031, Theodore W. Pietsch, principal investigator; the Japan Society for the Promotion of Science, grant number BSAR-401, Kunio Amaoka, principal investigator; the Russian Federal Science and Technology Programme for "Biological Diversity", state contract number 504-I(00)-I, Viktor V. Bogatov, principal investigator; the Russian Foundation for Basic Research (grant no. 04-04-48727), and the Far East Branch of the Russian Academy of Sciences (grant no. 04-3-A-06-042). I am also thankful to Yu.M. Marusik (Magadan) for psyllids collected by him. The collection of Zoological Institute RAS is supported by Ministry of education and Science of RF (no. 2-2.20).

References

- Burckhardt, D. & Lauterer, P.** 1997. Systematics and biology of the *Aphalaena exilis* (Weber & Mohr) species assemblage (Hemiptera: Psyllidae). *Entomol. Scand.*, **28**: 271-305.
- Gegechkori, A.M. & Loginova, M.M.** 1990. *Psyllid* (Homoptera, Psylloidea) SSSR: *annotirovannyi spisok* [Psyllids (Homoptera, Psylloidea) of the USSR: annotated checklist]. 164 p. Tbilisi: Metsniereba. (In Russian).
- Hodkinson, I.D. & Bird, J.** 2000. Sedge and rush-feeding psyllids of the subfamily Liviinae (Insecta: Hemiptera: Psylloidea): a review. *Zool. J. Linn. Soc.*, **128**(1): 1-49.
- Klimaszewski, S.M.** 1983. New data about the psyllids (Homoptera, Psylloidea) of Far Eastern USSR. *Prace Nauk. Univ. Slaskiego w Katowicach*, **627**: 7-21.
- Konovalova, Z.A.** 1978. New and little known species of Psylloidea (Homoptera) of the Far East. *Trudy biol.-pochv. Inst. Dal'nevost. Filiala Akad. Nauk SSSR*, **6**(153): 24-30. (In Russian).
- Konovalova, Z.A.** 1981. New species of Psylloidea (Homoptera) from the Far East. In: *Novyye svedeniya o nasekomykh Dal'nego Vostoka* [New data on the insects of the Far East]: 9-17. Vladivostok. (In Russian).
- Konovalova, Z.A.** 1983. Review of species of the genus *Calophya* Löw (Homoptera, Psylloidea, Calophyinae) from the south of the Soviet Far East. In: Bodrova, Yu.D. et al. (Eds.). *Sistematičeskij obzor razlichnykh otryadov nasekomykh Dal'nego Vostoka* [Systematics and ecological-faunistic review of the various orders of Insecta of the Far East]: 16-20. Vladivostok. (In Russian).
- Konovalova, Z.A.** 1988. Suborder Psylloinea. In: Lehr, P.A. (Ed.), *Opredelitel' nasekomykh Dal'nego Vostoka SSSR* [Keys to the insects of the USSR Far East], **2**: 495-540. Leningrad. (In Russian).
- Kuwayama, S.** 1967. *Insect fauna of the Southern Kurile Islands*. 123 p. Sapporo. (In Japanese).
- Loginova, M.M.** 1962. New psyllids from the USSR. *Trudy zool. Inst. Akad. Nauk SSSR*, **30**: 185-220. (In Russian).
- Loginova, M.M.** 1976. New and little known psyllids (Homoptera, Psylloidea) from the Primorsk Territory and Kurile Islands. *Trudy zool. Inst. Akad. Nauk SSSR*, **67**: 11-21. (In Russian).

Received 3 July 2006